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ABSTRACT

The principal aim of this study was to investigate the impact of type of college, place of residence, and reference group identification on college environmental perception. An attempt was made to measure the variability in terms of college perception that existed among students in the following subgroups: (1) sophomore male students attending 3 small colleges; (2) sophomore male students distributed among different residence arrangements within each college; and (3) sophomore male students maintaining different patterns of reference group identification within each college. The observations suggest that the college environment as a whole is a major determinant of variation in college environmental perception. However, the results of this investigation also indicate that differentiated parts of the college environment (such as residence and reference identification) significantly affect student perceptions of college environmental characteristics. The appendix includes the survey questionnaire. (Author/PG)

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GROUP AND SETTING FACTORS IN COLLEGE ENVIRONMENTAL PERCEPTION

presented
by

Richard L. Alfred, Ed. D.

to

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Introduction

In recent years, a considerable portion of educational research has been concerned with the study of environmental determinants of student behavior and attitudes. Most, if not all, of the research in this area has maintained as its primary objective the investigation of burgeoning social structural relationships between the student and his college environment (Pace and Stern, 1958; Astin and Holland, 1961; Warren, 1973). As institutions of higher education have increased in size and heterogeneity, they have taken on the structure of small communities, each with a unique configuration of environmental characteristics. Invariably, as a function of their tenure at college, students will develop unique perceptual-cognitive responses to these characteristics which in turn serve as a stimulus for specific attitudinal and behavioral expressions on their part. Implicit in this notion is the assumption that for fixed college characteristics, both

highly personalized perceptions of the college environment and environmental perceptions shared by and unique to a given subgroup of the college population should be demonstrated.

The Problem

Although the rapid emergence of college environment research has served as a foundation for the study of student-environment relationships, it has been beset with a number of problems. A persistent and unresolved problem in the study of the college environment, particularly its impact upon student behavior and attitudes, involves the need for exploration of variability among individuals with respect to their definition and conceptualization of the college environment as a stimulus. The majority of investigators in this area agree that the importance of the college environment stems from its effects, as a stimulus configuration, upon student behavior and attitudes. Not all investigators agree, however, on the nature of this stimulus nor do they agree on the nature of individual similarities or differences in definition or perception of the college environment.

Assuming that it is worthwhile to conceptualize the college environment in terms of a stimulus involving individual student perceptions, it becomes relevant to investigate whether or not variability in environmental perception can be established for students having different characteristics. Previous research has demonstrated that substantial relationships appear to exist between the perceptual responses of students to their college

environment and their distinctive types of living arrangements (Baker, 1966; Lindahl, 1967; Gelso and Sims, 1968). In addition, there is a large body of empirical research which has indicated that proximity of students within shared living arrangements results in the development of close friendship group relationships (Festinger, et al., 1950; Newcomb, 1961; Sinnett and Menne; 1971).

In this study, the principal aim was to investigate the impact of type of college, place of residence, and reference group identification on college environmental perception. An attempt was made to measure the degree of variability (in terms of college perceptions) that existed among students classified into the following subgroups:

1. Sophomore male students attending three small colleges.
2. Sophomore male students distributed among different residence arrangements within each college.
3. Sophomore male students maintaining different patterns of reference group identification within each college.

The grand-range objective of the study was the investigation of individual, group, and setting determinants of college environmental perception. Research hypotheses formulated with regard to this objective were predicated on the assumption that student perception of college environmental characteristics, if it occurs, will be a product of the residence arrangement and pattern (s) of reference group identifications held by the individual.

Method

The subjects for this study were 413 sophomore male students enrolled in three colleges in Pennsylvania. One hundred and sixty were enrolled in a private non-sectarian liberal arts college, 153 were enrolled in a public state college, and 100 were enrolled at a satellite campus of a public state university.

The criterion measure of reference group identification in this study was a sociometric questionnaire administered to all subjects. The questionnaire was labeled, The Interpersonal Attitude Survey (Appendix A) and it required all subjects to indicate the class of persons, (e.g., parents, residents of the same living arrangement, faculty, administrators, classroom contacts, neighborhood friends, etc.), whom they would select as desirable referents for their behavior, attitudes, and opinions with respect to: (1) twenty-two salient educational issues (Table I) and (2) fifteen routine spheres of day-to-day living (Table II). This made it possible to develop distinctive patterns of reference group identification for all subjects through determination of the frequency with which they selected particular reference group categories to represent their choice of persons with whom they would interact across relevant spheres of activity.*

*The construct "pattern of reference group identification" is meant to refer to the distinctive patterning of reference group choices made by subjects across salient issues and day-to-day activities. For example, if a particular subject chose to distribute his reference group choices equally between two categories (such as residents of the same living arrangement and classroom contacts), then it was possible to formulate an intra-residence: classmate pattern of reference group identification.

Table I. Issues of Interest to 113 College Students in the Pilot Study

Type of Issue	
1. Interpersonal relationships	12. Faculty irrelevance
2. Grades	13. Relations w/community authorities
3. Occupational goals	14. Irrelevance of courses
4. Dating and social life	15. Social pressures
5. Study methods	16. Drugs
6. Political and moral concern	17. "Social coolness"
7. Choice of academic major	18. Concern over graduation
8. Financial	19. Parental pressure
9. Concern over roomates	20. Exams
10. Self awareness	21. Student apathy
11. Anonymity in large-scale organization	22. Quality of housing

Table II. Routine Day-to-Day Activities for 113 College Students in the Pilot Study

Type of Activity	
1. Relaxing in living quarters before or after classes.	10. Attending college sponsored cultural event without a date.
2. Studying in afternoons and evenings.	11. Going to dinner at a local restaurant without a date.
3. Sharing table at dinner.	12. Selecting a team to participate in organized intramural athletics.
4. Going to a social event without a date.	13. Sharing table at lunch.
5. Participating in spontaneous and informal athletic contests.	14. Relaxing and "goofing off" on weekends.
6. Attending a movie without a date.	15. Taking someone home for a weekend.
7. Relaxing between classes on campus.	
8. Browsing in a downtown store.	
9. Relaxing and having a rap session on weekday evenings.	

In order to check the stability and reliability of reference group choices, a cross-checking procedure was utilized wherein reference group choices made by subjects across salient issues were checked for consistency against choices made by them in terms of day-to-day activities.

The residence concept in this study was measured through specifications of the particular types of living arrangements that were maintained by subjects at the time they completed the sociometric questionnaire. Four residence categories were presented, i.e., fraternity, dormitory, off-campus, and family residence categories, and subjects were asked to select the one category which most accurately represented their choice of living arrangements for the current academic quarter.

The criterion measure of college environmental perception in this study was the College and University Environment Scales - (CUES) Second Edition. The CUES was administered to all subjects in the sample and is a perceptual-cognitive instrument consisting of 160 statements descriptive of the intellectual-social-cultural climate of college life; it is organized along seven major dimensions which describe the college environment. These dimensions are:

> Scale 1. Practicality: The twenty items that contribute to the score for this scale describe an environment characterized by enterprise, organization, material benefits, and social activities. There are both vocational and collegiate emphases. A kind of orderly supervision is evident in the administration and the classwork. As in many organized societies, there is also some personal benefit and prestige to be obtained by operating in the system. Knowing the right people, being in the right clubs, becoming a leader, respecting one's superiors, are important. The environment, though structured, is not repressive; it responds to entrepreneurial activities and is generally characterized by good fun and school spirit.

Scale 2. Community: The items in this scale describe a friendly, cohesive, group-oriented campus. There is a feeling of group welfare and group loyalty that encompasses the college as a whole. The atmosphere is congenial; the campus is a community. Faculty members know the students, are interested in their problems, and go out of their way to be helpful. Student life is characterized by togetherness and sharing rather than by privacy and cool detachment.

Scale 3. Awareness: This scale reflects a concern about, and emphasis upon, three sorts of meaning: personal, poetic, and political. An emphasis upon self-understanding, reflectiveness, and identity suggests the search for personal meaning. A wide range of opportunities for creative and appreciative relationships to painting, music, drama, poetry, sculpture, architecture, and the like suggests the search for poetic meaning. A concern about events around the world, the welfare of mankind, and the present and future condition of man suggests the search for political meaning and idealistic commitment. What seems to be evident in this sort of environment is a stress on awareness of self, of society, and of aesthetic stimuli. Along with this push toward expansion, and perhaps as a necessary condition for it, there is an encouragement of questioning and dissent and a tolerance of nonconformity and personal expressiveness.

Scale 4. Propriety. These items described an environment that is polite and considerate. Caution and thoughtfulness are evident. Group standards of decorum are important. There is an absence of demonstrative, assertive, argumentative, and risk-taking activities. In general, the campus atmosphere is mannerly, considerate, proper, and conventional.

Scale 5. Scholarship: The items in this scale describe a campus characterized by intellectuality and scholastic discipline. The emphasis is on competitively high academic achievement and a serious interest in scholarship. The pursuit of knowledge and theories, scientific or philosophical, is carried on rigorously and vigorously. Intellectual speculation, an interest in ideas, knowledge for its own sake, and intellectual discipline are all characteristic of the environment.

Scale 6. Campus Morale: The twenty-two items in this scale indicate acceptance of social norms, group cohesiveness, friendly assimiliation into campus life, and, at the same time, a commitment to intellectual pursuits and freedom of expression.

Intellectual goals are exemplified and widely shared in an atmosphere of personal and social relationships that are both supportive and spirited.

Scale 7. Quality of Teaching and Faculty-Student Relationships: This scale defines an atmosphere in which professors are perceived to be scholarly, to set high standards, to be clear, adaptive, and flexible. At the same time, this academic quality of teaching is infused with warmth, interest, and helpfulness toward students.

To evaluate hypotheses based on the notion that college environmental perception is positively related to certain characteristics of individuals perceiving the environment, mean group scores on each dimension of the CUES were obtained for students classified according to: (1) type of college, (2) place of residence, and (3) pattern of reference group identification. In this way, it was possible to conduct both univariate (ANOVA) and multivariate (MANOVA) analysis of variance tests for equality of mean scores on relevant variables.

Hypotheses and Results

Hypothesis One postulated that a significant relationship would exist between type of college and college environmental perception. This hypothesis is confirmed. Table III presents the results of consecutive univariate and multivariate analysis of variance tests for equality of mean CUES scores for students classified according to type of college. As this table indicates, a multivariate F-ratio of 21.33 (14/682 df) was found which is significant to the .05 level. The table also indicates that the greatest variation among colleges occurred on the Awareness, Practicality, Scholarship, and Quality of Teaching and Faculty-Student Relationships dimensions of CUES.

Table III. Summary of Multivariate and Univariate Analysis of Variance Tests for Equality of Mean Scores for College and College Environmental Perception.

Source	Variable	F-Ratio		D.F.	P Less Than
	7 Environmental Perception Scales	multivariate	F=21.33	14/682	< .05
Type of College	Practicality	univariate	F=36.80	2/347	< .05
	Community	"	F= 1.58	2/347	> .05
	Awareness	"	F=20.59	2/347	< .05
	Propriety	"	F=17.66	2/347	< .05
	Scholarship	"	F=39.43	2/347	< .05
	Campus Morale	"	F= 4.67	2/347	> .05
	Quality of Teaching and Faculty-Student Relationships	"	F=30.97	2/347	< .05

The data reveal that greatest variation between colleges occurs on a public-private dimension. On the one hand, students enrolled in a private non-sectarian liberal arts college perceive the environment as being high in awareness (self-understanding, reflectiveness, and expressiveness), Scholarship (intellectualism, scholastic discipline, and interest in ideas), and Quality of Teaching and Faculty-Student Relationships (academic excellence, personalized instruction, and flexible curriculum requirements) compared to students enrolled in a public state college and a satellite campus of a public state university. On the other hand, students enrolled in the public institutions view the environment as being high on the Practicality (enterprise, organization, and material benefits) and Propriety (conventionality, mannerliness, and group decorum) dimensions of CUES as compared to their sophomore male counterparts at a private liberal arts college.

Hypothesis Two postulated that a significant relationship would exist between residence and pattern of reference group identification.

A chi square test for significance of the relationship between these variables produced a chi square value of 190.64 (27 df) which is significant to the .01 level. The data in Table IV indicate that, on the one hand, students residing in fraternities and off-campus apartments comprise the majority of students classified into the intra-residence, intra-residence: classmate, and intra-residence: faculty-administrative reference group patterns. On the other hand, students residing in a family residence arrangement are classified primarily into the classmate: faculty-administrative, classmate,

Table IV. Chi Square Table for Relationship of Place of Residence and Pattern of Reference Group Identification.

Type of Residence	Number and Per Cent of Students Classified into Each Reference Group Pattern (All Colleges, N = 3)										
	Intra-residence	Intra-residence: classmate	Intra-residence: faculty-administrative	Classmate: faculty-administrative	Classmate	Faculty-administrative	Faculty-administrative: parental	Classmate: parental	No pattern	Row Total	Per Cent
Fraternity	29 30%	18 19%	16 17%	4 4%	4 4%	2 2%	1 1%	1 1%	22 23%	97	24%
Dormitory	55 28%	14 7%	26 13%	19 10%	26 13%	9 5%	4 2%	4 2%	41 21%	198	48%
Family	-- --	-- --	-- --	11 18%	6 10%	2 3%	11 18%	20 33%	10 17%	60	15%
Off-Campus	14 24%	3 5%	3 5%	15 26%	4 7%	6 10%	1 2%	3 5%	9 16%	58	14%
Column Total	98	35	45	49	40	19	17	28	82		
Per Cent	24%	9%	11%	12%	10%	5%	4%	7%	20%		

Percentages are based on row frequencies.

The value of Chi-squre for 27 DF is equal to 190.644. The probability of exceeding this value of Chi-square by chance is 0.000.

faculty-administrative: parental, and classmate: parental reference group patterns. Lastly, students maintaining an off-campus residence arrangement, (i.e., off-campus apartments and boarding houses), were for the most part classified into the intra-residence, classmate: faculty-administrative, and faculty-administrative reference group patterns. On the basis of demonstrated variability among residence groups (in terms of reference group identification), support is claimed for this hypothesis.

Hypothesis Three predicted that a significant relationship would exist between residence and college environmental perception.

Support is claimed for this hypothesis as Table V reveals that a multivariate F-ratio of 2.56 (21/896.45 df) was obtained which is significant to the .01 level. This table also reveals that greatest variation among students situated in different types of residence arrangements occurs on the Awareness and Scholarship dimensions of CUES.

Students situated in a fraternity residence arrangement describe the environment as being high in Awarenss (expressiveness, self-understanding, and reflectiveness) and Scholarship (scholastic discipline, intellectualism, and interest in ideas) whereas students residing in family and dormitory residence arrangements achieve low scores on these dimensions. Considerable variation (in terms of mean scale scores) is observed for students living off-campus apartments and boarding homes. These are the only dimensions on which significant univariate F-ratios were obtained with respect to the relationship between residence and college environmental perception.

Table V. Summary of Multivariate and Univariate Analysis of Variance Tests for Equality of Mean Scores for Residence and College Environmental Perception.

	Variable	F-Ratio		D.F.	P Less Than
Residence (adjusted)*	7 Environmental Perception Scales	multivariate	F= 2.56	21/896	< .05
	Practicality	univariate	F= 0.92	3/412	> .05
	Community	univariate	F= 2.50	3/412	> .05
	Awareness	univariate	F= 5.13	3/412	< .05
	Propriety	univariate	F= 2.52	3/412	> .05
	Scholarship	univariate	F= 3.61	3/412	< .05
	Campus Morale	univariate	F= 1.30	3/412	> .05
	Quality of Teaching and Faculty-Student	univariate	F= 1.02	3/412	> .05

*It was previously noted that residence has been adjusted in terms of pattern of reference group identification. That is, when consideration is given to the relationship of residence and college environmental perception, the effects of reference group identification have been removed.

Hypothesis Four stated that a significant relationship would exist between pattern of reference group identification and college environmental perception.

Table VI presents the results of consecutive multivariate and univariate analysis of variance tests for equality of mean CUES scores for students classified according to pattern of reference group identification. This table reveals a multivariate F-ratio of 1.40 (56/2083.47 df) which is significant to the .05 level. Moreover, when consideration is given to this relationship within a univariate frame of analysis, it is evident that greatest variation between student subgroups occurs on the Practicality dimension of the CUES.

Students classified into the faculty-administrative: parental and classmate: parental reference group patterns view the environment as being considerably higher in Practicality (enterprise, organization, and social activities) than do students classified into the intra-residence and intra-residence: classmate patterns. A similar pattern is observed on the Propriety (conventionality, mannerliness, and group standards of decorum) and Community (cohesiveness, small group orientation, and friendliness) dimensions as students classified into the parental reference group pattern (the majority of whom reside off-campus with families and relatives) achieve more positive scores than students sorted into the intra-residence pattern (predominantly dormitory and fraternity residents). A converse trend is observed on the Scholarship scale (intellectuality and

Table VI. Summary of Multivariate and Univariate Analysis of Variance Tests for Equality of Mean Scores for Pattern of Reference Group Identification and College Environmental Perception.

Source	Variable	F-Ratio		D.F.	P Less Than
Pattern of Reference Group Identification (Adjusted)	7 Environmental Perception Scales	multivariate	F= 1.40	56/2083	< .05
	Practicality	univariate	F= 3.51	8/318	< .05
	Community	univariate	F= 1.57	8/318	> .05
	Awareness	univariate	F= 1.03	8/318	> .05
	Propriety	univariate	F= 1.11	8/318	> .05
	Scholarship	univariate	F= 1.64	8/318	> .05
	Campus-Morale	univariate	F= 1.32	8/318	> .05
	Quality of Teaching and Faculty-Student Relationships	univariate	F= 0.55	8/318	> .05

scholastic discipline) as low scores are achieved by students classified into the intra-residence and classmate reference group patterns and high scores are achieved by students classified into the intra-residence: faculty-administrative, classmate: faculty-administrative, and classmate: parental reference group patterns. Therefore, support is claimed for this hypothesis.

Hypothesis Five postulated that the relationship between place of residence and college environmental perception, if it occurred at all, would be mediated by the pattern of reference group identification maintained by the individual.

Table VII presents a summary of multivariate and univariate F-ratios obtained through consecutive analysis of variance tests for equality of mean CUES scores for students classified according to place of residence and pattern of reference group identification. This table indicates that a multivariate F-ratio of 1.37 (140/2083.47 df) was obtained which is reflective of a significant interaction effect between residence and pattern of reference group identification relative to college environmental perception. Furthermore, a significant univariate relationship is evident between these variables on the Practicality, Community, Propriety, and Quality of Teaching and Faculty-Student Relationships dimensions of CUES. However, the reliability of these results is questionable since low cell frequencies appear to contribute to deviancy among group means. As a result, this hypothesis is not confirmed.

Table VII. Summary of Multivariate and Univariate Analysis of Variance Tests for Equality of Mean Scores for Residence, Pattern of Reference Group Identification, and College Environmental Perception.

Source	Variable				
Residence Arrangement X Pattern of Reference Group Identification	7 Environmental Perception Scales	multivariate	F= 1.37	140/2083	< .05
	Practicality	univariate	F= 1.92	20/318	< .05
	Community	univariate	F= 1.60	20/318	< .05
	Awareness	univariate	F= 1.21	20/318	> .05
	Propriety	univariate	F= 2.09	20/318	< .05
	Scholarship	univariate	F= 0.95	20/318	> .05
	Campus Morale	univariate	F= 1.12	20/318	> .05
	Quality of Teaching and Faculty-Student Relationships	univariate	F= 1.70	20/318	< .05

Summary and Discussion

In this study, the college environment as a whole and a differentiated sum of parts can be seen to have ongoing impact on student perception quite apart from the effects of initial selection and entrance. Specifically, students distributed within different types of college environments, as well as diverse residence arrangements within each college environment, maintain quite different perceptions of the college community. Furthermore, students classified according to place of residence exhibit substantial variation with respect to reference group choices they make across salient issues and day-to-day activities. Additional data demonstrate that variation (in terms of college environmental perception) occurs among students classified according to pattern of reference group identification.

It is notable that the independent variables in this study are qualitatively different in terms of their observed relationships to the dependent variable, college environmental perception. Specifically, type of college and place of residence are the sources of greater variation in college environmental perception than pattern of reference group identification. It is evident that variables descriptive of a setting level of analysis, (i.e., type of college and place of residence) involve an environmental component in their relationship to college environmental perception. On the other hand, pattern of reference group identification is descriptive of a group level of analysis and involves a social psychological component in its relationship to college environmental perception. Therefore, since the dependent variable

also involves an environmental component, it is logical that variables descriptive of the same component will reflect a more positive relationship than variables descriptive of divergent components. A second factor which may account for variation in impact of selected variables upon college environmental perception, is reflected in specific classification schemes utilized for the independent variables. Categories that are part of the setting variables, (i.e., type of college and place of residence), are more distinct in type than are categories within the social psychological variable. For example, type of college and place of residence are easily distinguished variables and comprise a ready-made variation for the classification of students into specific subgroups. Quite to the contrary, pattern of reference group identification is an extremely complex variable; subgroups that make up the variable cannot be easily distinguished on the basis of simple inspection. Evidence of this problem is apparent in the diversity of methods utilized to study reference group identification of participating students in this study -- a combination of six different techniques were utilized to establish and cross-check data with respect to reference group patterns.

The findings related to hypotheses in this study -- type of college, place of residence, pattern of reference group identification, and college environmental perception -- are meaningful but complex. Significant relationships emerge between each independent variable and the dependent variable. These relationships, however, diminish in significance as attention is turned

from environmental variables, (i.e., setting variables) to the social psychological variable. Thus, it appears that types of college and place of residence are better predictors of variation in college environmental perception than is pattern of reference group identification.

It is important to note that variability among students classified according to type of college, place of residence, and reference group pattern, occurs on several interesting dimensions. In terms of variability among students attending different colleges, significant F-ratios are found on the Practicality, Awareness, Propriety, and Scholarship dimensions. Students enrolled in a private non-sectarian liberal arts college perceive the environment as being relatively high in Scholarship (scholastic discipline, intellectualism, and interest in ideas) and Awareness (expressiveness, non-conventionality, and self-understanding) when compared to students enrolled in two public colleges. On the other hand, students enrolled in the public colleges achieve high scores on the Practicality (organization, enterprise, and material benefits) and Propriety (mannerly, considerate, and proper college environment) dimensions of CUES whereas students enrolled in the private college do not. These findings are parallel to findings obtained by Pace (1958), and Centra and Linn (1968) in previous college environment research. Briefly, as attention is shifted from the public sector of higher education to the private sector, it is apparent that several phenomena occur. These phenomena are the following:

1. Students attending selective liberal arts colleges typically score very high on the Scholarship and Awareness dimen-

sions; higher than average on the Propriety dimension; and very low on the Practicality dimension.

2. Students enrolled in general universities and state colleges differ from students enrolled in selective liberal arts colleges since they achieve lower scores on the Scholarship and Awareness dimensions and correspondingly higher scores on the Propriety and Practicality dimensions.

The findings obtained with respect to the effect of residence and pattern of reference group identification on college environmental perception reflect the conceptual derivation that substantial variation in college perception occurs within one college environment as well as between different college environments. It appears that residence is a very meaningful predictor of variation in college environmental perception. On the one hand, students residing in fraternity and dormitory living arrangements perceive the environment as being high in Scholarship while, on the other hand, students residing in a family living arrangement view the environment as being low in Scholarship but high in Quality of Teaching and Faculty-Student Relationships. Therefore, whereas fraternity and dormitory residents describe the college environment as being characterized by intellectuality, scholastic discipline, interest in ideas, and the theoretical pursuit of knowledge, family residents evaluate the environment as placing emphasis on high standards of academic performance, but, also the development of meaningful and close faculty-student relationships. Of great interest here are the marked differences between on-campus (fraternity and dormitory) and off-campus (family and apartment) residents with respect to Scholarship. A reasonable explanation might be that on-campus residents have developed

a norm of competition in striving for high academic achievement whereas off-campus residents place greater emphasis upon a norm of cooperation in attempting to satisfy curriculum requirements.

A second dimension on which residence groups vary in college environmental perception is characterized by high scores attained by dormitory and off-campus residents on the Awareness scale as compared to high scores attained by fraternity and family residents on the Community scale. Specifically, it appears that dormitory and off-campus residents view the college environment as reflecting a concern about self-understanding, creative meaning, personal expressiveness, and constructive dissent, whereas fraternity and family residents perceive the environment as maintaining an atmosphere of friendliness, congeniality, and togetherness among faculty, student, and administrative subcultures. This finding is consistent with results obtained in previous research -- students who reside in highly structured and cohesive living units (i.e., family and fraternity residence arrangements) which are governed by small group norms are more likely to perceive the college environment as being friendly and group-oriented than are students who reside in college-sponsored dormitories and apartments. Furthermore, it is also logical that upper class dormitory and apartment residents are not fully aware of the social characteristics of campus life. For the most part, ongoing campus activities occur within a small group framework and dormitory and apartment dwellers may find these activities foreign to their interests. Campus activities would seem to be less mean-

ingful to those who observe them from a distance (such dormitory and apartment dwellers than to those who actually participate).

Finally, when analysis is undertaken of variation among students classified according to pattern of reference group identification, it is apparent that significant differences occur on the Community and Practicality dimensions of CUES.

On the one hand, students maintaining intra-residence, intra-residence: classmate, and classmate patterns of reference group identification perceive the college environment as being friendly, cohesive, and group-oriented. Quite to the contrary, students who maintain faculty-administrative: parental, classmate: parental, faculty-administrative, and intra-residence: administrative patterns of reference group identification perceive the environment as being characterized by enterprise, organization, material benefits, and structured social activities.

Symbolic interaction theory suggests several relevant explanations for these differences. First, it is plausible that students identifying with reference groups in close proximity within shared residence arrangements, (i.e., students maintaining intra-residence and intra-residence: classmate patterns of reference group identification) are more cohesive, friendly, and group oriented than are students who identify with more distant reference groups such as groups made up of off-campus, faculty, and administrative contacts, (i.e., contacts who are members of faculty and administrative subcultures in institutions of higher education). As a result, students who identify with

reference groups within their own place of residence, may have a tendency to perceive the environment as being friendly, cohesive, and group-oriented. Furthermore, it is logical that students who identify with reference groups made up of off-campus, faculty, and administrative contacts will perceive the environment as being high in Practicality since their relationships with these referents may be more "instrumental" than social. In other words, students maintaining faculty-administrative, classmate: parental, and faculty-administrative: parental patterns of reference group identification may tend to place greater emphasis on establishing relationships which are instrumental to them in attaining academic, vocational, and socioeconomic goals. These students have a tendency to view the college environment in terms of such characteristics as enterprise, organization, and material benefit.

The observations above suggest that the college environment as a whole is a major determinant of variation in college environmental perception. However, the results of this investigation also indicate that differentiated parts of the college environment (such as residence and reference group identification) significantly affect student perceptions of college environmental characteristics. An idiom of social psychological theory maintains that individual behavior and attitudes are formed within the context of an individual-group-setting relationship. In applying this idiom to higher education, it would seem important that institutional personnel interested in college environment research should seriously consider residence location and reference group identification of students when attempting to investigate the impact of college

on individual behavior and attitudes.

Observed tendencies on the part of students to maintain diverse, subculture-based perceptions of the college environment have many implications for definition of the college environment. Most, if not all, higher education administrators interested in research pertaining to college impact would probably agree that the importance of the college environment in phenomenological terms, stems from its effect as a stimulus configuration upon student behaviors and attitudes. The problem and associated data investigated in this study substantiate the proposition that the college environment does have impact upon student behavior and attitudes. Impact is selective, however, as students' selection of a particular college brings them into contact with a unique configuration of environmental characteristics. Their location within particular types of residence arrangements puts them in proximity with persons who may serve as referents for their evaluations of self and environment. These persons may come to constitute a distinguishable reference group for the student and in this capacity serve to insulate and isolate him from extra-group influences in the wider environment, thus affecting the pattern of his reference groups. Reference group identification, then may be a function of proximity when different patterns of reference groups develop among students situated in different residence arrangements. As students come to identify with their own reference groups, certain of their behavior and attitudes are shaped by group norms. To the extent that reference group

norms become personal they become anchors for individual attitudes and behavior. Accordingly, it is proposed that the impact of residence upon student perception of college environmental characteristics, if it occurs, is mediated by the pattern of reference group identification maintained by the individual.

Implications of the Investigation

This investigation derived its conceptual model from the theory of symbolic interaction. A successful attempt was made to examine, on an empirical level, the individual-group-setting relationship within which individual behavior and attitudes are formed. These findings suggest that the theoretical concepts of physical setting, sociocultural setting, and reference group have utility when applied to the study of the college environment. Therefore, further theoretical and empirical exploration is both necessary and desirable.

More specifically, one implication of importance to theory is the question: "Do all three factors, individual, group, and setting, contribute proportionally to the shaping of individual behavior and attitudes in relevant spheres of activity?" The affirmative of this question was an assumption of this investigation. However, it is possible that one factor will have greater impact upon individual behavior and attitudes than other factors. This outcome could not be investigated in the current study because the effects of residence and reference group pattern were controlled, such that the variance due to one was removed when the main effect for the other was

tested. In order to fully understand the individual-group-setting relationship within which individual behavior and attitudes take form, it would seem necessary to examine the strength of various factors in combination upon college environmental perception.

The finding that place of residence and pattern of reference group identification affect student perceptions of the college environment, demonstrates that if college environment researchers are to fully understand the impact of college upon individual behavior and attitudes, factors internal to the college environment must be considered (e.g., place of residence, pattern of reference group, identification, sex, curriculum major, class level, etc.). It is also evident that the college environment as a whole has significant impact upon student perceptions of college environmental characteristics. Although the current investigation did not have as its primary thrust the study of relative strength of the independent variables with impact, it did support the conclusion that diverse factors may cause variation in perceptions of college environments. It follows that the most feasible apprcach to research on the college environment would be an integrated investigation of impacts stemming from the college environment as a whole and as differentiated parts.

Since survey research techniques have been utilized in this investigation to measure reference group identification, there is a great need for additional and more direct techniques by which these phenomena can be measured at an empirical level of analysis. Such techniques might include

the study of individual behavior and attitudes through participant observation, analysis of sociometric ratings, undertaking of in-depth interviews, and other field techniques which may uncover empirical data with respect to individual-group relationships. There is a need for more detailed information relative to the conditions under which certain persons come to constitute a reference group for the individual. For example, is it possible that persons who are referents for the individual in psychological spheres of activity may not be referents for him in behavioral spheres of activity?

It was previously noted that a primary tenet of reference group theory revolves around the notion that group norms structure the perceptual world of the individual. Insofar as the personal experiences may be at variance with his behavioral world, it may be necessary to differentiate among them.

As an example of the necessity for conducting more systematic research relative to reference group identification, it was noted earlier that there was consistency between reference group choices made by students across (1) salient educational issues and (2) day-to-day activities. It may prove enlightening to take these as well as other indicators of reference group identification and determine whether different techniques applied at the same level of analysis will yield congruent or contradictory results. If contradictory results are obtained, it would seem to suggest that there are several sources of group influence for the individual. More specifically, the persons who influence the individual in psychological spheres of activity may not influence him in behavioral spheres of activity and vice versa.

A related area of needed research concerns the finding that place of residence and pattern of reference group identification are highly correlated variables. Additional research with respect to the relationship between these variables may indicate that a selection mechanism is in operation whereby students maintaining similar personal needs systems will tend to be attracted to the same type of residence arrangements or that the residence itself limits the alternatives for interpersonal interaction.

It was noted above that residence and reference group pattern may vary in their effect on college environmental perception. At a gross level, it may be proposed that the impact of residence on college environmental perception is in part due to the high correlation between residence and reference group patterns. Therefore, until better indicators of reference group patterns are obtained, an environmental variable such as residence may be a better predictor of college environmental perception than a social psychological variable (pattern of reference group identification).

A second factor which may account for variation in effects of residence and reference group pattern on college environmental perception derives from the classification scheme utilized to develop categories within each variable. More specifically, categories of residence (fraternity, dormitory, family, and off-campus) are more distinctive than categories developed for pattern of reference group identification. However, before the implications of this finding can be fully understood, further research will be necessary.

Having previously discussed the need for more intensive utilization

of field research techniques in the study of reference group identification, it is appropriate to consider the relevance of survey research techniques to the measurement of reference group identification. The studies reviewed earlier in the investigation utilized field research techniques and were largely concerned with the development of empirical measures of friendship group formation. For example, a variety of field and survey research techniques such as participant observation, informal interviews, external observation, subject reports, personal diaries, etc., were used in a study of peer group formation (Newcomb, 1961). In an earlier study of friendship group formation, sociometric procedures and informal interviews were used as the major techniques of investigation (Festinger et al., 1950). However, Festinger et al.'s design was similar to Newcomb's in that both relied primarily on field research techniques (e.g., participant observation interviews, and external observation) as a means of measuring reference group identification.

The current study, while not ignoring the utility of field research techniques, has attempted to employ survey research techniques because of the unique opportunity they afforded the researcher to obtain a large quantity of data over a short span of time. A major assumption of this study was that a combination of techniques appropriate to the phenomenon in question would insure more accurate findings with respect to patterns of reference group identification. Although residence may be a better predictor of college environmental perception than pattern of reference group identification,

nevertheless there was a relationship between pattern of reference group identification and college environmental perception. This finding demonstrates that survey research techniques can be utilized with some success in measuring reference group identification.

However, the question which must now be considered is: When the advantages of survey research techniques are compared to their limitations, is further use of these techniques warranted? Clearly, field research techniques such as participant observation and informal interviews enable researchers to study reference group identification in a more direct fashion. It is also apparent that survey research techniques can be utilized to measure reference group identification in spite of several limitations (such as lack of specificity and low reliability). However, the use of field research techniques tends to be quite expensive in terms of time and resources required whereas the utility of survey research techniques lies in their low cost and relatively easy implementation. Therefore, although it will be necessary to turn to field research techniques such as those used by Newcomb and Festinger et al. for further understanding with respect to reference group identification, there are enough advantages associated with survey research techniques to warrant their further use.

One of the outcomes of this investigation has been the development of an instrument by which assessment can be made of patterns of reference group identification maintained by students in diverse physical and sociocultural settings. This instrument, of course, requires further refinement in the

measurement of reference group identification. Nevertheless, it has demonstrated its utility in differentiating students according to pattern of reference group identification. As such, it may be useful for further researchers interested in this area to use this instrument (or a refined version) in conducting additional research relevant to the impact of college students. If future investigators consider these implications in their design, it may be possible to gain further knowledge about the impact of the individual-group-setting relationship on the formation of individual attitudes and perceptions.

APPENDIX A

Section I

Instructions

Please complete the following questions by placing the number of the answer you feel best fits your situation on the line to the left of the question. Please complete each of the three questions in this section.

__ 1. What type of residence are you living in this term (Fall, 1971)?

1. fraternity
2. dormitory
3. home with parents
4. other_____ (please specify)

__ 2. If you could live in any type of residence that you wanted during this term, which type would you choose?

1. fraternity
2. dormitory
3. home with parents
4. other_____ (please specify)

__ 3. If you could go to any college that you wanted to this year (1971-72) would you still choose the one you are now attending?

1. yes 2. no 3. not sure

Section II

Instructions

Please complete the following section by choosing the response category which you feel best represents your opinion toward each of the educational issues stated.

Place the number of the category in the space provided to the left of each statement. Use the following scale:

Strongly Agree	Agree	Mildly Agree	Undecided	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

__ 1. Most parents, faculty and administrators place too much emphasis upon the value of obtaining high grades in college.

__ 2. The people who live closest to a student are often difficult to get along with after one has been around them awhile.

__ 3. Most parents attempt to exert their control over the behavior and attidues of students with regard to certain aspects of college life, e.g., choice of major, grades, dating habits.

Strongly Agree	Agree	Mildly Agree	Undecided	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

__ 4. Many courses are so irrelevant to the occupational world that the choice of a vocation is difficult.

__ 5. Since colleges have become such large-scale organizations, a negative feature of college life is the treatment of students as numbers.

__ 6. Most college examinations are unfair because they fail to accurately measure a student's real knowledge of the subject.

__ 7. Many college students are not genuinely interested in their courses and therefore experience difficulty developing good study habits.

__ 8. College instructors are usually difficult to get to know because they are disinterested in students' needs and unaware of students' primary reasons for obtaining an education.

__ 9. Many college students find college-sponsored social and cultural events dull and uninteresting.

__10. Many college students have difficulty selecting a major field because a choice is required too early in their college careers.

__11. College students often experience difficulty with community authorities (local merchants, bankers, police, etc.) because these frequently self-seeking individuals attempt to take advantage of them.

__12. One of the most meaningful experiences in a student's college life is the development of positive and lasting interpersonal relationships with other students.

__13. Lack of finances is not a major problem for most students because of the many ways available to finance a college education.

__14. Many courses offered in college are highly relevant to contemporary political and social issues in American society.

__15. Peer pressure toward conformity is good because it introduces students to socially acceptable modes of behavior.

__16. Rather than being harmful, marijuana helps the student to free himself from his inhibitions and find his real identity.

__17. Contact with members of the opposite sex in college is helpful in developing skill in later heterosexual relationships.

Strongly Agree	Agree	Mildly Agree	Undecided	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

__18. The involvement of many college students with contemporary political and social issues exposes the students to problems they would not confront in conventional college curricula.

__19. The quality of housing now used by many colleges is quite satisfactory since colleges have continually attempted to upgrade the facilities.

__20. Increased awareness of his own personality heightens the student's interest in assessing his impact on others.

__21. The major concern of many college students is not to obtain a degree but to accumulate enough knowledge to make their own way in life.

__22. One of the most important aspects of college for the male student is finding a decent female to date and perhaps a suitable one to marry.

Section III

Instructions

In this section you are asked to evaluate the educational issues listed below with regard to how important you feel each one of these issues is to you.

Some of the issues may seem to be highly relevant to you and should be evaluated as 'high' in importance. Other issues may seem to be quite irrelevant to you and should be evaluated as 'low' in importance.

Please carefully examine each issue. Place the number most accurately representing your attitude in the space provided to the left of each statement. The scale you are to use follows:

High Importance			Moderate Importance			Low Importance
1	2	3	4	5	6	7

__ 1. The development of close friendships among college students is a very meaningful experience because these friendships teach the student how to be more sensitive to the needs of others.

__ 2. The apathy of many college students toward organized social and cultural events must be fought against because participation is an important part of college life.

__ 3. One important concern for many students is whether or not their funds are sufficient to enable them to remain in college this year or go to college next year.

High Importance			Moderate Importance			Low Importance
1	2	3	4	5	6	7

__ 4. Greater understanding between students and community authorities must be developed to eliminate the students' feelings of 'being taken advantage of.'

__ 5. College students should not be required to choose a major during their first years but should be permitted to do so when they feel they have more knowledge of different major fields.

__ 6. It is important for students to become better acquainted with faculty members so they can communicate their needs with regard to improvements in course content and curriculum requirements.

__ 7. For students to learn more about problems in American society, it will be necessary to make the courses offered more relevant to contemporary political and social issues.

__ 8. Before college students can develop better study habits or become genuinely interested in their studies it will be necessary to restructure the curriculum so the courses offered will be more relevant to contemporary student needs.

__ 9. Peer pressure must be modified if students are to have enough freedom to discover their real identities or become all that they are capable of becoming.

__10. It will be necessary to change most of the examination techniques currently employed by college instructors before students can be tested fairly with regard to the real knowledge they have of a particular subject.

__11. Drugs should be legalized because they help students free themselves of their inhibitions and discover the truth of their real identities.

__12. Colleges and universities have become such large scale organizations that there is a tendency on the part of officials to look upon students as numbers rather than as unique individuals.

__13. If the college male is to experience success with the female he dates he must first develop a unique style.

__14. To enhance the male student's chances of choosing the right vocation it will be necessary to change the curriculum so it will give them more exposure to the occupational and professional world.

__15. The current involvement of college students with contemporary political and social issues seems to be a reflection of their desire to find appropriate solutions to some of the problems that are generated by a technological society.

High Importance			Moderate Importance			Low Importance
1	2	3	4	5	6	7

__16. The freedom of college students is limited because parents too often attempt to exert their control over the students' behavior.

__17. The quality of housing facilities that students are asked to live in should meet certain standards if students are to realize their full academic potential.

__18. Because of their nearness to the student, those persons who share the same residence are expected to have a strong influence either as a source of conflict or a source of help.

__19. The tendency to analyze and assess the impact of their personalities on their peers is one factor that may account for students' increased interest in the intensity and quality of their interpersonal relationships.

__20. Grades are very important to college students because they are the criteria by which representatives of graduate schools, business concerns, and professional organizations evaluate the acceptability of the student.

__21. Graduation is a major concern to college students because if one wants to get somewhere in life it is first necessary to obtain a degree.

__22. One of the most important aspects of college life for male students is finding a suitable female to date or perhaps even to marry.

Section IV

Instructions

Please review each of the educational issues listed below and select the type of person (s) you would spend the greatest amount of time with in discussing the problems that arise concerning each issue.

Using the categories listed, select the one category which you feel most closely reflects your choice of person(s). Place the number of that category in the space provided to the left of each statement.

1 - parents and other members of your family

2 - neighborhood friends attending this college

3 - neighborhood friends not attending this college

4 - classmates

5 - faculty, administrators, staff at this college

6 - I would not discuss this issue with anyone

ADDITIONAL CATEGORIES FOR STUDENTS LIVING IN DORMS OR FRATERNITIES

7 - students living in your dorm (fraternity)

8 - students living in another dorm (fraternity)

__ 1. The emphasis parents, faculty, and administrators place on the value of obtaining high grades in college.

__ 2. The difficulties that arise in getting along with people you've lived close to for awhile.

__ 3. The control parents attempt to exert over the behavior and attitudes of students with regard to certain aspects of college life, i.e., choice of major, grades, dating habits.

__ 4. Students' difficulty in choosing courses because course offerings are completely irrelevant to the occupational world.

__ 5. Students' treatment as numbers, caused by the large-scale organization of today's colleges.

__ 6. The failure of most college examinations to provide an accurate measure of the amount of real knowledge a student has with regard to a particular subject.

__ 7. The difficulty most college students experience in developing good study habits because most students are not interested in their studies.

__ 8. College instructors' lack of awareness of student needs and of the primary reasons for which students have chosen to obtain a college education.

__ 9. Students' apathy toward college sponsored social and cultural events.

__10. Students' difficulty in choosing a major so early in their college careers.

__11. Students' difficulties with community authorities who attempt to take advantage of them.

__12. The development of positive and lasting interpersonal relationships as one of a student's most meaningful college experiences.

__13. The different ways in which to finance an education when a student lacks sufficient funds.

1 - parents and other members of your family

2 - neighborhood friends attending this college

3 - neighborhood friends not attending this college

4 - classmates

5 - faculty, administrators, staff at this college

6 - I would not discuss this issue with anyone

ADDITIONAL CATEGORIES FOR STUDENTS LIVING IN DORMS OR FRATERNITIES

7 - students living in your dorm (fraternity)

8 - students living in another dorm (fraternity)

__14. The relevance of many college courses to contemporary political and social issues in American society.

__15. Peer pressure toward conformity which introduces students to the socially acceptable modes of behavior they will need later in life.

__16. Marijuana's help in freeing students from their inhibitions while they attempt to discover their real identities.

__17. The development of students' ability, through their contacts with members of the opposite sex in college, to 'keep their cool' in future social relationships.

__18. The involvement of college students with contemporary political and social issues, exposing them to problems in American society which are not considered in the conventional college curriculum.

__19. The satisfactory quality of housing now available to students, since colleges have continually attempted to upgrade their housing facilities.

__20. Students' increased awareness of their own personality characteristics, heightening their interest in their impact on other people.

__21. The primary objective of most college students not to obtain a degree but to accumulate enough knowledge to make their own way in life.

__22. A male student's opportunity to find a decent female to date and perhaps find a suitable marriage partner.

Section V

Instructions

In this section you are requested to identify the type of person (s) with whom you most frequently and regularly interact in different situations. Some of these situations are habitual living routines carried out on a day-to-day basis and others are special occasions which obviously do not occur on a day-to-day basis.

Please review the situations presented and place the number of that category which best describes your choice of compaion (s) in the space provided to the left of each situation.

1 - parents and other members of your family

2 - neighborhood friends attending this college

3 - neighborhood friends not attending this college

4 - classmates

5 - faculty, administrators, staff at this college

ADDITIONAL CATEGORIES FOR STUDENTS LIVING IN DORMS OR FRATERNITIES

6 - students living in your dorm (fraternity)

7 - students living in another dorm (fraternity)

__ 1. Relaxing in your living quarters before or after classes.

__ 2. Studying in the afternoons and evenings.

__ 3. Sharing your table at dinner.

__ 4. Going to a social event on a weekend without a date.

__ 5. Participating in spontaneous and informal athletic contests.

__ 6. Attending a movie without a date.

__ 7. Relaxing between classes on campus.

__ 8. Browsing in a downtown store.

__ 9. Relaxing and having a rap session weekday evenings.

__10. Attend a college sponsored cultural event without a date.

__11. Going to dinner at a local restaurant without a date.

1 - parents and other members of your family

2 - neighborhood friends attending this college

3 - neighborhood friends not attending this college

4 - classmates

5 - faculty, administrators, staff at this college

ADDITIONAL CATEGORIES FOR STUDENTS LIVING IN DORMS OR FRATERNITIES

6 - students living in your dorm (fraternity)

7 - students living in another dorm (fraternity)

__12. Selecting a team to participate in organized intramural athletics.

__13. Sharing your table at lunch.

__14. Relaxing and goofing off during the weekends.

__15. Taking someone home for a weekend.

Section VI

Instructions

In this section you are to respond to each question by placing the number of the appropriate response in the space provided to the left of each question. Please try to arrive at the best possible answer to all the questions, even those you are unsure of.

__ 1. What is your father's present position?

1. professional (physician, lawyer, teacher, etc.)
2. managerial & sales (production manager, salesman, etc.)
3. technical (laboratory technician, medical technologist, etc.)
4. agriculture (farming, forestry, fishery, etc.)
5. skilled & semi-skilled (machine work, printing, textiles, glass, painting, electrical repair, assembly line work, etc.)

__ 2. What is your estimate of your total family income last year?

1. $16,000 and over
2. $13,000 -$15,999
3. $9,000 - $12,999
4. $5,000 - $8,999
5. $4,999 and under

__ 3. What is the highest educational level completed by your father?

1. masters or doctoral level graduate work
2. bachelors degree
3. one or two years of college
4. high school diploma
5. one or two years of high school or less

__ 4. What is the highest educational level completed by your mother?

1. masters or doctoral level graduate work
2. bachelors degree
3. one or two years of college
4. high school diploma
5. one or two years of high school or less

__ 5. What type of city, town, borough, or village do you live in?

1. suburb of large metropolitan area
2. central area of large city
3. a small city of 100,000 - 200,000 population
4. a borough or township
5. small village or farm community

__ 6. What is your mother's working status?

1. not working
2. works 5-9 hours a week
3. works 10-19 hours per week
4. works 20-30 hours per week
5. works on a full-time basis

__ 7. How large is your family?

1. one child
2. two children
3. three children
4. four children
5. five or more

__ 8. Are you working while you attend college?

1. no
2. 5-9 hours per week
3. 10-19 hours per week
4. 20-30 hours per week
5. full-time job (40 hours per week)

__ 9. What type of residence does your family occupy?

1. one-family home
2. two-family duplex
3. town house
4. two- or three-bedroom efficiency
5. one-room efficiency

__10. How long have you lived at your present address?

1. 11 years or more
2. 6-10 years
3. 4-5 years
4. 2-3 years
5. one year or less

__11. How large was the high school you attended?

1. 2,000 students or more
2. 1,000-1,999 students
3. 750-999 students
4. 500-749 students
5. 499 or fewer students

__12. What type of high school did you last attend?

1. private, non-parochial
2. private, parochial
3. public high school
4. technical high school
5. have armed services degree (GED)

__13. What is the highest educational degree you want to obtain?

1. doctoral degree
2. masters degee
4. associate degree (2-year degree)
5. no degree, want to attend college for just one or two years

__14. What subject area are you planning for your major field?

1. Liberal Arts (English, social science, history, etc.)
2. Humanities (philosophy, music, art, etc.)
3. Science-Math (chemistry, physics, biology, math, etc.)
4. Engineering (chemical engineering, electrical engineering, etc.)
5. Agriculture (forestry, agriculture, animal science, etc.)

__15. What type of occupation do you plan to enter?

1. professional (physician, lawyer, teacher, etc.)
2. managerial and sales (production manager, salesman, etc.)
3. technical (laboratory technician, etc.)
4. agricultural (farming, forestry, fishery, etc.)
5. skilled labor (printing, textiles, glass, painting, etc.)
6. other